What is Claimed is:

1. A wafer lifter for self-centering a wafer on a pedestal comprising:

a lifter body of annular shape having a center cavity with a diameter that is larger than a diameter of the wafer pedestal;

at least four support fingers emanating upwardly from said lifter body and are spaced-apart from each other; and

a platform on a tip portion of each of said at least four support fingers defined by a slanted surface from a vertical plane of an outside surface of said support finger, said platform when supporting a wafer thereon leaves substantially no gap between said slanted surface and an outer periphery of the wafer.

2. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, wherein said platform being defined by a slanted shoulder portion of said support finger.

3. A wafer lifter for self-centering a wafer on a pedestal according to claim 2, wherein a base of said slanted shoulder portion of the support finger defines a diameter of a circular area surrounded by the platforms of the at least four support fingers which is not larger than a diameter of said wafer when measured at 23°C.

4. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, wherein said at least four support fingers are substantially equally spaced-apart from each other.

5. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, wherein said platform when supporting a wafer thereon leaves a gap smaller than 0.5 mm between said slanted surface and said outer periphery of the wafer.

6. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, ~~wherein~~ said lifter body is fabricated of a ~~material~~ that has a rigidity of at least that of ~~aluminum~~.

7. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, wherein said lifter is equipped with four support fingers emanating upwardly from said body.

8. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, wherein said lifter body is equipped with four support fingers emanating upwardly from said body at a 90° angle from a horizontal plane of said body.

9. A wafer lifter for self-centering a wafer on a pedestal according to claim 1, wherein said lifter body has a ring shape.

10. A method for self-centering a wafer on a wafer pedestal comprising the steps of:

providing a wafer lifter comprising a lifter body of annular shape having a center cavity with a diameter that is larger than a diameter of said wafer pedestal, at least four support fingers emanating upwardly from said lifter body and are spaced-apart from each other, and a platform on a tip portion of each of said at least four support fingers defined by a slanted surface from a vertical plane of an outside surface of said support finger,

said platform when supporting a wafer thereon leaves substantially no gap between said slanted surface and an outer periphery of the wafer;

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positioning a wafer on said wafer lifter supported by said platform on said top portion of the at least four support fingers; and

lifting said wafer lifter to a position over said wafer pedestal and depositing said wafer onto said pedestal.

11. A method for self-centering a wafer on a wafer pedestal according to claim 10 further comprising the step, after said lifting step, of lowering said wafer lifter to deposit said wafer onto said wafer pedestal.

12. A method for self-centering a wafer on a wafer pedestal according to claim 10 further comprising the step of sputter depositing a metal layer on a top surface of said wafer.

13. A method for self-centering a wafer on a wafer pedestal according to claim 10 further comprising the step of self-centering the wafer on said wafer lifter during said positioning step when said wafer is guided into a center position by said slanted surface on said tip portion of the at least four support fingers.

14. A method for self-centering a wafer on a wafer pedestal according to claim 10 further comprising the step of providing four support fingers that are vertically mounted on said lifter body.

15. A method for self-centering a wafer on a wafer pedestal according to claim 10 further comprising the step of fabricating said lifter body with a material that has a rigidity of at least that of aluminum.

16. A method for self-centering a wafer on a wafer pedestal according to claim 10 further comprising the step of fabricating said lifter body with aluminum or stainless steel.